TRAINING COURSE
Revision 2

COMMUNICATING EMERGENCY PUBLIC INFORMATION

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“Most of the variation in why people respond as they do when they receive information and warnings during an emergency is MORE the result of the quality and quantity of the emergency information itself than it is anything else.”

(Dennis Mileti, Director Emeritus of our nations’ repository for knowledge about human behavior in disasters.)

PURPOSE OF THIS COURSE

- To familiarize you with the state-of-the-art in the social sciences about the kind of emergency public information that works best.

- To maximize public health and safely in actual future emergencies by making the emergency information that YOU release as good as it can be.

OVERVIEW OF THE COURSE

1. Background Issues

2. Alerting People

3. Preliminary Issues About What to Tell People in a Warning

4. What to Tell People (Warning Content)

5. Warning Style

6. Pulling Content & Style Together

7. A Special Warning Topic: “Managing a Conversation”

8. How the Warning Information is Delivered

9. Determine Public Responses and Adjust your Next Messages

10. Diverse Warning Technologies Have Been Selected

11. Special Warning Issues

12. Ending the Warning

13. Conducting a Post-Warning Assessment

1. BACKGROUND ISSUES

INTENTION

- There are a few things you should know before we address public information and warnings during an actual emergency.

- The intention of this course section is to review these important background issues.

THE PANIC MYTH

- The public does NOT panic in response to emergency warnings. But believing that panic does happen is a problem.

- The MYTH of panic can make warning officials reluctant to tell the "Whole Truth" or it can cause them to withhold information thereby actually contributing to public injury.

- Panic can happen, for example in a burning building with limited escape routes. It doesn't happen in community-wide emergencies.

- The real problem in community-wide emergencies is the OPPOSITE of panic: getting people to believe they are really at risk and getting them to take a protective action.

HOW PRE-EVENT EDUCATION IMPACTS PUBLIC WARNING RESPONSE

- People's responses to public warnings are most dependent upon the information provided by emergency managers during the emergency.

- Pre-emergency public education/information is also important, but for other reasons, for example to minimize surprise during an actual event.

- Sound emergency preparedness must provide training to their own employees through testing, exercises, and drills.

- Pre-event education is an important part of preparedness. It is relevant to the public and emergency response personnel, but it is NOT a substitute for issuing adequate public warnings when an actual emergency occurs.

PUBLIC EDUCATION ABOUT WARNINGS IS IMPORTANT

- An important part of pre-event public education is education people about the warnings they'll receive during an actual event.

- People are not alert to hazards as they go through normal life. It is NOT second nature to members of the public to consider low-probability/high-consequent events until they happen.

- To best support emergency public information and warnings during an actual emergency, pre-event public education about warnings should at least address:

    - Who will issue the warnings
    - What the warning could say
    - How the warning will be issued
    - What communication media will be used and how to access them

FEAR OF DECISION-MAKING

- There is an unfounded but widespread belief in the MYTH that the public will become unnecessarily alarmed or do counter-productive things if warned about a low-probability but high-consequence event.

- Historically, there are documented cases in which belief in this MYTH has caused officials to withhold warnings.

- Withholding public warning information can be a real problem since the public needs time to believe that it is really at risk and start a protective action.

- Officials must make decisions about whether or not to issue warnings on the basis of probabilities. Emergency planning for nuclear power plant emergencies address the fear of decision-making problems better than emergency planning for any other hazard.

YOU WON'T BE WARNING ALONE

- Our increasingly complex world has made issuing public warnings more complex that it has ever been.

- One reason is that, today, many different groups issue warning information to the same public.

- The days of single-source, single-communication channel warnings are over.

- For example, the public could well get warning information for a nuclear power plant emergency from groups and people as diverse as CNN in Atlanta; officials who work for the NRC in Washington, D.C.; the Governor of your state, and even from the White House.

- One warning challenge in today's world is learning and using state-of-the-art knowledge in the social sciences about public warnings in the context of multiple public warning partners.

2. ALERTING PEOPLE

GETTING PEOPLE'S ATTENTION

- Emergencies, by definition, are a disruption of normal life.

- Alerting people is "getting people's attention" while they are engaged in normal life activities.

- Alerting people, or getting their attention, is important because you can't warn people if they aren't listening.

- Alerting people is not a simple task for all sorts of reasons, for example:

    - People isolate themselves from being overwhelmed by information.

    - There may be cultural isolation; people in some sub-cultures may not have access to mainstream alerting.

    - Most people believe they are safe and that disasters only happen to other people in other locations, so they are reluctant to "think" they are being alerted even when alert signals are blaring.

- New ways to alert people are becoming increasingly available.

- Different sub-population or groups often require unique/special alerting, e.g. hospitals.

NOISE LEVEL

- Alerting signals require a noise level above ambient levels so people can hear the signal.

ALERTING AT NIGHT: WAKING PEOPLE UP

- Outdoor alerting devices may not provide effective alerting to people indoors in seasons when people have their windows shut and heating/air conditioning systems are operating.

- It has been estimated that a 10 dBC over ambient outdoor siren sounding for 3 minutes would have a 62% probability of arousing a person sleeping in a house.

- A 20 dBC over ambient would increase that arousal level by 10%.

- This suggests that an indoor alerting device is needed to get a high level of rapid alert at nighttime.

- This is an important issue for fast-moving events.

- Different emergency plans address this need in different ways.

ALERTING THE IMPAIRED

- Special groups to alert include those that have hearing loss or are visually or mentally impaired.

- Specialized technologies for alerting the impaired have been developed, such as a scrolling message on a TV screen for the hearing impaired.

- These technologies, however, all have their advantages and disadvantages.

- Different emergency plans address this need in different ways.

ALERTING TRANSIENTS

- Transients are those people temporarily in an area such as tourists, motorists, and the homeless.

- Some are easy to reach using modern technology such as signboards. Others, particularly those on the fringe of society, are difficult to alert.

- Electronic message signs have the capability to provide remotely controlled, changeable messages to motorists driving within, or approaching the area at risk.

- Different emergency plans address this need in different ways, and different areas can have unique transient populations, e.g., beach-goers in coastal communities.

FORMAL VERSUS INFORMAL ALERTING

- Informal alerting is the process of diffusion of information. Someone hears an alert and wakes up others in the family or calls a friend or relative to see if they have heard the alert.

- This happens in EVERY warning situation and you can count on it happening in any that might involve you.

- The problem from an emergency-planning viewpoint is that there is no way to predict who will receive an informal alert and who will not.

- Information travels at an every increasing speed in our changing society.

- On 9/11, most of the United States learned of the attacks within an hour of the incident.

- It has been a good rule of thumb that for every 2 persons who receive an official warning as a first warning, 1 person received an unofficial one as their first warning.

3. PRELIMINARY ISSUES ABOUT WHAT TO TELL PEOPLE IN A WARNING

GIVE PEOPLE ENOUGH INFORMATION

- Just about everyone believes that a public warning must be short because it is difficult to hold people's attention. What all these people share in common is that they've never really studied how real people respond to real warnings in real emergencies.

- Although brief warning messages can play a role in public warning, they are insufficient unto themselves.

- During events for major disasters, members of the public become information hungry.

- Official warning information should more closely resemble an ongoing conversation with the public who need to be warned.

- People need a lot of warning information and they need to have it communicated to them often. If you do not provide the public with a lot of information, they'll get it from somewhere else.

- The "somewhere else" where they get it may direct public response in counter-productive directions.

WHAT YOU SAY DETERMINES WHAT THE PUBLIC DOES

- People form ideas about what's about to happen, and take or don't take steps to protect themselves, based on the ideas that they form DURING an actual warning event.

- There is NO single factor that impacts what people think and do that is more important than what you actually say in the warning message.

- Research provides us with a strong basis for knowing what works and doesn't work in a warning message. You'll know too as a result of taking this course.

NO ONE WILL AUTOMATICALLY FOLLOW RECOMMENDED ACTIONS

- People don't automatically follow recommendations just because you said them.

- Public warning response follows a known and quite predictable social process.

- Public warning response DOES NOT conform to a military-like command and control structure.

- Additionally, there will always be a few people who simply choose not to take any protective action regardless of the pending risk.

4. WHAT TO TELL PEOPLE (WARNING CONTENT)

INTENTION

- The intention of this course section is to tell you about WHAT different kinds of information should be in a public warning message.

WARNING CONTENT: WHAT YOU NEED TO SAY

- Research provides CLEAR evidence that public warnings work best to protect the health and safety of the public if those warning messages contain information on certain topics.

- Some topics are more important to have in a warning than others.

- We'll review five topics regarding the content of a public warning message:

  Guidance

  Location

  Time

  Hazard/Risk

  Source

FIRST, GUIDANCE: WHAT PEOPLE SHOULD DO

- The single MOST IMPORTANT thing to have in a public warning message is to tell people what they should do.

- Too many people incorrectly focus on WHY people should take protective action versus what people should actually do.

- You must decide what protective action(s) you want people to take before issuing a warning and then prominently place those recommendations into the warning.

- And, the protective action(s) in the public warning MUST be fully described.

- For example, if you are going to advise people to evacuate, tell them, but also tell them what evacuation means (otherwise, it will mean different things to different people).

- Here's an illustration:

"By evacuate we mean relocate outside of Forest Hills County"

SECOND, LOCATION: WHO SHOULD RESPOND AND WHO DOESN'T HAVE TO

- WHO SHOULD respond to the warning and WHO SHOULDN'T must be clearly specified

- It should be clearly described in language everyone can understand.

- The more SIMPLY that the area(s) at risk and not at risk can be described, the better.

- Keep in mind that most public warnings communicate to more people NOT at risk than they communicate to people who are at risk.

- And, remember, that you'll be talking to people with varied knowledge about where they are, e.g., people who grew up in the area as well as people in the area for their first night's stay in a strange hotel room.

- Here's an example:

  "The people who should evacuate is anyone is located in the area between
  -Interstate 50 on the south,
  -Deep Water Lake on the north,
  -Interstate 60 on the west, and
  -Horseshoe Mountain on the east.
  If you don't know if you are in this area, ask someone who can tell you. If you are not in this area there is no reason for you to leave, and, if you do, you may delay the evacuation of people who do need to leave."

THIRD, TIME: HOW MUCH TO DO IT

- Another important topic to communicate to people in public warnings is how much time they have in which to successfully complete the protective action(s) that is being recommended.

- Also tell them how much time they have before they should begin taking actions.

- Here's an example:

> "Those of you who have been advised to evacuate should begin to leave the area no later than 12:15 p.m."

FOURTH, HAZARD: DESCRIBE THE RISK

- Warnings must provide people with information about the impending hazard by describing the event that may occur and how it poses a danger to them.

- A warning for a nuclear power plant accident might, for example, indicate that the radiation will filter into the air like a cloud and then travel with the wind while becoming less and less concentrated until it is so diluted that no public protective actions are needed.

- If the character of the hazard is DESCRIBED, people are better able to understand the logic of the protective actions they are being asked to take or not take, and that will enhance the odds of more people acting accordingly.

- This will also reduce the number of misperceptions that people will have about the hazard and actions consistent with those misperceptions about the hazard they face.

FIFTH, SOURCE: WHO IS SAYING IT

- The final important topic to cover in a public warning is WHO is issuing the warning. The source of the warning should be covered in the actual warning message.

- Warning source is important because it impacts public warning belief.

- Unfortunately, there is NO ONE SINGLE credible source for all members of a diverse public.

- Pre-warning planning with partners (it has to be done ahead of time because there isn't time to do it during most real emergencies) should be conducted that would enable a warning during an actual event to come from a mixed set of people or a "warning panel".

- It may be difficult for elected officials charged with issuing warning to work with others in a panel, but that's what's needed to enhance public safety.

- A good mix of people and an organization to issue public warnings would include:

  Appropriate elected official(s)

  Someone from the operator of the nuclear plant having the problem, preferably a utility "nuclear engineer" since they'd know the most about the problem

  Someone from a traditional emergency response organization that the public is familiar with, for example the Red Cross

  And others

5. WARNING STYLE

INTENTION

The intention of this course section is to tell you how to STYLE what you tell people in a public warning message.

WARNING STYLE: HOW YOU SHOULD SAY IT

- The way a public warning is crafted (style) is almost as important in influencing what people do in response to that warning as what is actually being said.

- We'll review five aspects to the style of warning that influence public response:

Specificity

Certainty

Clarity

Accuracy

Consistency

FIRST, SPECIFICITY: LEAVE NOTHING TO THEIR IMAGINATIONS

- Specific information makes the most effective warnings.

- If information is un-specific or vague, people will invent their own meanings, and then do things consistent with that they think.

- Consequently, un-specific information creates a wide range of public responses, some of which may be counterproductive to public health and safety.

- Specificity may even include ACKNOWLEDGING UNCERTAINTY.

- Be specific about each of the five public warning content topics (Guidance, Location, Time, Hazard/risk and Source).

- Here's an example:

> "You should shelter in-place."
>
> vs.
>
> "Shelter in place now by closing ALL of your doors and windows tightly, and shut off all heating, air conditioning, and other ventilation systems."

SECOND, CERTAINTY: DECIDE WHAT WILL HAPPEN EVEN IF YOU'RE NOT SURE

- A warning message MUST be stated with certainty, even if there is ambiguity about the hazard/risk.

- Certainty also extends beyond the content of the message itself to include the tone of the voice of the person delivering it to people.

- The warning should be spoken or written as if the person speaking the words BELIEVES it and is certain about what he/she is saying.

- Be certain about each of the five public warning content topics (Guidance, Location, Time, Hazard/risk and Source).

- Here's an example:

> "We can't say for sure that a release of radiation will actually happen, but we all agree that we and you need to act now as if it will occur."

THIRD, CLARITY: USE SIMPLE LANGUAGE

- The message must be in simple language that can be understood by the people who will be listening to it.

- For example:

  "some radiation may escape from a hole in the nuclear reactor"

  NOT

  " a possible transient excursion in the reactor resulting in a sudden relocation of the core materials outside of the containment vessel".

- Use clarity in reference to each of the five public warning content topics (Guidance, Location, Time, Hazard/risk and Source).

- A good rule of thumb is: "if your grandmother couldn't understand it, say it a different way".

FOURTH, ACCURACY: TELL THE TRUTH, THE WHOLE TRUTH

- If something goes wrong, eventually, everyone WILL find out ALL about it. Hide nothing. Tell the truth.

- The message must contain timely, accurate and complete information.

- When people learn or suspect that they are not receiving the whole truth, your credibility and believability is lost and it may never be regained.

- Accuracy is enhanced by being fully open and honest, even if you don't want to.

- Use subsequent warning messages to correct any errors in previous messages, tell the truth, and own up to uncertainty when there is uncertainty.

- Be accurate regarding each of the five public warning content topics (Guidance, Location, Time, Hazard/risk and Source).

- Here's an example:

> "In our last warning we said that it looked like things at the plant were under control. They aren't. In fact, they've gotten worse. To maximize public health and safety we must now recommend that ….."

FIFTH, CONSISTENCY IN THE MESSAGE

- If you can count on anything in most warning events, you can count on inconsistency in the warnings that are given to the public.

- When people are given inconsistent information, many will pick the information that they "prefer".

- Inconsistencies can also exist across different warning messages.

- As emergencies evolve, more is often learned about the impact and the new information may reveal increases or decreases in the hazard and/or of the number of people who are at risk.

- Consistency can be rendered simply by

    Referring and repeating what was last said

    Acknowledging what has changed

    Telling people why

- Here's an example:

    "In our last warning message we said that only people in Halifax County should evacuate. That needs to be changed because we've just learned that the amount of radiation that could be released will be less than first thought. Only the people who live in Halifax County south of Interstate 40 need to evacuate."

6. PULLING CONTENT AND STYLE TOGETHER

BEWARE: THERE IS NO SUCH THING AS ZERO RISK

- It is a BIG mistake to think that your warning message is to reassure and to “calm” people.

- People do NOT NEED to be calmed down. The OPPOSITE is true: people need to be RALLIED INTO ACTION.

- There is no such thing as “zero risk” to people during normal times and it is even MORE true when an emergency is going on.

WHEN YOU CAN, USE GRAPHICS AND VISUALS

- In an information rich society, people are used to being presented with information in graphically and visually illustrated formats and media.

- Graphics and visuals can do a great deal in assisting people understand what you are trying to communicate in a warning.

- The use of graphics and visuals will be impacted by how much time you have from when an emergency begins and when it will impact people.

- Television and newspapers are two key places people will turn to for information.

- Graphics and visuals are excellent devices for communicating things like risk and areas that may be impacted.

PULLING IT ALL TOGETHER

A CHECKLIST FOR WHAT'S IN A WARNING

a. Content (what there is to say)

1. Guidance—what people should do to protect themselves
2. Location—who should do it and who shouldn't
3. Time—how much time they have to do it
4. Hazard—what the risk is
5. Source—who's issuing the warning

b. Style (how you should say it)

1. Specificity—leave nothing to their imaginations
2. Certainty—decide what may happen even if you're not sure
3. Clarity—would your mother understand your message?
4. Accuracy—tell the truth and own up to your mistakes
5. Consistency—don't leave them thinking no one knows what will happen

EXERCISE

- Let’s practice writing some public warning messages in ways that have us work with the 5 Content and 5 Style factors we just went over.

7. SPECIAL WARNING TOPIC: MANAGING A CONVERSATION

INCONSISTENCY IS INEVITABLE

- One of the things that most jeopardizes public health and safety when people are given warnings is if they receive conflicting warning information, e.g., you're safe/not safe, evacuate/shelter/do nothing, and so on.

- Multiple sources of public warning information and the potential for this information being inconsistent, has never been more likely that it is in today's society.

- COUNT ON there being inconsistent public warning information because you won't be warning the public alone—so will many others and there will be more others then ever before.

- In addition to everything else you need to know to effectively warn a public, you also need to know how to render inconsistent public warning information consistent that is, you must manage a public warning "conversation" among many.

THERE ARE TWO WAYS TO MANAGE A PUBLIC WARNING CONVERSATION

- One way to manage many warning givers, such that the probability that they say consistent things in the warning information that they give the public is through recent innovations in emergency planning: include them in the provision of information about what's going on. That's a separate part of emergency planning.

- Another approach is to address this issue in and with the public warning that you write and issue. That's what we're going to tell you how to do next.

- Both approaches are needed in today's world, but the former will never replace the need for the latter.

RENDER INCONSISTENT WARNING INFORMATION CONSISTENT

- There's more for you to do than just give the public adequate warning. It is also your job to mange the public warning conversation that the people you are trying to warn will be hearing.

- They'll be hearing from a lot more people and organizations other than just you.

- If you don't manage that public conversation in the warnings you issue, your warnings could get lost in a "sea of information" for the people you are trying to warn.

- Consequently, it is also your job to render the warning information that the people in the public you are warning from all other warning sources (including non-official sources, the media, official sources that were never part of emergency planning, e.g., the White House, and other sources) as consistent as possible for the public.

- Keep in mind that there is NO way to have everyone who might make public warning statements during an actual emergency say the same thing.

- Also keep in mind that many public warning sources will emerge during an actual emergency and it is impossible to include all of them in emergency planning ahead of time.

- Conflicting information is, therefore, so inevitable that it is important to assume that it will exist and learn how to manage it.

- This is one example of why we say that issuing warnings in today's society is like "managing a conversation".

- There are several ways to render inconsistent public warning information across different sources consistent.

THERE ARE MULTIPLE WAYS TO ADDRESS THE ISSUE

- There are multiple ways to address that the public will receive inconsistent warning information from multiple sources. These are:

  Give information to others who would give warnings

  Monitor what others are saying and address it

  Focus the public on your warning information

GIVE INFORMATION TO OTHER WHO WOULD GIVE WARNINGS

- Organize your emergency plan so that other public warnings will receive timely, complete and accurate information that will assist them in saying the same things that you are saying.

- This is a state-of-the-art organizational solution and outside the scope of this course.

MONITOR WHAT OTHERS ARE SAYING AND ADDRESS IT

- You need to be supported by others in a major way during an actual emergency in deciding what to say in your public warnings.

- Have other people monitor the full range of others communications to the public. These should include ALL the ways that people in the public that you will be warning may be receiving information. This is not a small job since it may include at least, for example, the following:

  Television (local, non-local, Cable)

  Radio

  The World Wide Web

  And many others

- This wasn't that big a job a few decades ago, but the information technology revolution has made this a much bigger job since there are now so many different ways that the public can get information.

- Examine what misinformation has been presented to the public across all of these sources and address it in your next public warning message.

- Here's an example of how to do that:

  "We know that some have advised people within 50 miles of the nuclear power plant to evacuate, but that is absolutely inaccurate information and the wrong thing to do at this time. There is no reason for anyone except people within two miles of the plant to evacuate and if others leave, it might actually make things worse by slowing down the evacuation of the people who should leave—the people within two miles of the plant."

- This is another example of what we mean when we say that issuing public warnings in our society today is like managing a conversation.

FOCUS THE PUBLIC ON YOUR WARNING INFORMATION

- There's a third way to address inconsistent public warning information across warning sources.

- There is a way to have your warning stand out and have a bigger impact than any of the others that people may receive.

- Overcome the tendency to believe the popular myth that people in the public do not want to hear the same warning message many times.

- People in a public at risk need to hear the same thing over and over again.

- Here's how to do that:

  Issue the warning frequently.

  Tell people that you will issue the warning over and over unless new information becomes available or until something changes.

  Communicate your warning message to other people and organizations that are also issuing (or could issue) a warning, and encourage them to say the same thing.

- In other words, have YOUR warning information repeated as many times as possible by yourself and others and disseminated over as many different channels so communications as is possible.

- A final point: the more frequently people hear the same warning message, the more likely they are to believe it even if the message is coming from sources that they do not find credible.

IT'S NOT A DISCRETE WARNING—IT'S MANAGING A CONVERSATION

- As you can now see, issuing an effective public warning can no longer be viewed as a single act.

- Warnings now more closely resemble an ongoing dialogue with an at-risk public.

- Today, warning systems must take the "communication web" nature of our society into account.

8. HOW THE WARNING INFORMATION IS DELIVERED

COMMUNICATION DEVICES WERE SELECTED AHEAD OF TIME

- Never use a single communication device to distribute a warning to citizens.

- There is NO single way to communicate that works for everyone.

- Different sub-groups and different kinds of people in a public use different modes of communication.

DIVERSITY IN THE PUBLIC HAS BEEN TAKEN INTO ACCOUNT

- Example: today there are well over 80 different languages spoken in the City of Los Angeles.

- Remember, communities can be humanly diverse in many ways:

  For example:

  A high influx of tourists
  Rural populations
  Unique settlements such as the Mennonites
  The disabled and hearing impaired
  A high concentration of the aged

- Sub-populations like these may require unique ways/devices of being warned.

SPECIAL WARNING MODES TO REACH DIFFERENT COMMUNITIES

- A well planned warning system must use diverse and multiple communication modes and/or devices depending on the kinds of sub-groups and people in the population.

DIVERSE WARNING MODES ARE POSSIBLE AND WERE SELECTED

- There should be a major communication mode selected to distribute public warnings that is electronic and which readily reaches many people.

- Here are some varied ways to distribute public warnings:

  Special language television stations
  Newspapers
  Special language newspapers
  Radio
  Non-English language radio
  Cell phones
  The Internet
  Pagers
  Tone alert radios
  Telephone call out trees
  Route notification
  Cable television override
  Tone alert radios
  Loudspeaker and public address (PA systems)
  Telephone automatic dialers
  Sirens and alarms
  Aircraft
  NOAA Weather Radio

- Keep in mind that the MORE modes of communication used to communicate the SAME public warning message the better, as people will more readily believe and then act accordingly.

9. DETERMINE PUBLIC RESPONSE AND ADJUST YOUR NEXT MESSAGES

PUBLIC RESPONSE SHOULD BE MONITORED

- It's not enough to just issue good public warnings.

- Public response to prior warnings should be monitored and subsequent warning messages adjusted based on the appropriateness of what people in the public are doing/not doing.

- It is important to remember that YOU are actually causing what the public does and doesn't do in a response to warning based on WHAT and HOW you tell them.

- It's like driving a car:

  Don't take your hands off of the wheel.

  If things are headed in the wrong direction, do something about it.

- Monitoring public response isn't difficult. For example, there are a lot of emergency workers who know what people are doing because they are in the field and can see what people are doing.

MAKING CORRECTIONS IN PUBLIC RESPONSE

- Based on what you learn from monitoring public response, change your next warning messages to take that into account if need be.

- For example. If you learn that people who should have started to evacuate haven't yet done so, you could directly address that in your next warning message.

METHODS OF MONITORING/ PUBLIC RESPONSE HAVE BEEN SELECTED

- How public response may actually get monitored may vary.

- Ways to monitor public response include:

  Law enforcement reports
  Traffic guides
  Hotlines
  Web cams
  Traffic counters
  Media reports
  Reception center reports
  Others

10. DIVERSE WARNING TECHNOLOGIES HAVE BEEN SELECTED

A RANGE OF DEVICES ARE AVAILABLE

- Some of the available ways to deliver public warnings are:

  Route Alert

  Loudspeakers and Public Address (PA) systems

  Emergency Alert System (EAS)

  Radio

  Television

  Tone alert radio (TAR)

  Telephone Automatic Dialers

  Sirens and Alarms

  Message Signs

  Aircraft

  Visual alerting

  Internet Protocol (IP) based Technology

- While there are many devices and technologies available, all of them have their advantages and disadvantages and there is no SINGLE device or technology that is going to work for EVERYONE in any given situation.

BE FAMILIAR WITH THE DEVICES/APPROACHES SELECTED FOR YOU

- Different approaches and devices for communicating public warning information to the public have already been selected as part of emergency planning for your nuclear power plant.

- Become very familiar with these device and approaches, as you will need to use them in an actual emergency.

11. SPECIAL WARNING ISSUES

INTENTION

- The intention of this course section is to familiarize you with a variety of special warning topics. It is important for you to know about these things even though they might not be applicable in any emergency with which you are involved.

PROTRACTED EVENTS

- Some public warning events may extend beyond the period of time that members of the public would normally remain vigilant, concerned or even interested.

- This rarely happens until several days have passed.

- It is difficult for people, who have evacuated, for example, to stay away from home for extended periods of time.

- In circumstances such as this, it is important to provide the public with additional warning information. This information should address the obvious, for example:

    Why people cannot yet return home

    Why the event is still ongoing

    What's might happen next

    And so on

- It could be easy to forget to provide the public with this sort of information since people who need to take protective actions may have already accomplished them and are safe.

- Not providing the public with this sort of information can have a variety of negative impacts, for example, some people returning home before they should, unneeded public anger and so on.

IMPACT ZONE

- Warnings for events confined to fairly small areas are more easily managed than warnings for widespread areas.

- This is particularly true if the zone of impact extends over multiple political boundaries with different political, decision-making or warning responsibilities.

- Perhaps most important, targeting multiple political jurisdictions for warnings requires pre-event planning, procedures and partnerships.

DON'T FORGET TO COMMUNICATE TO EVERYONE

- People Not at Risk: We've already said this, but it's worth repeating. Warnings communicate to more people NOT at risk then they do to people who are at risk and may need to take a protective action.

- Don't forget to include information in the warnings you issue for the people not at risk, for example, tell people close to an area being evacuated WHY they don't need to leave.

- Emergency Workers: Another important group to communicate with when warnings are being issued are emergency responders.

- A real issue in REAL emergencies is that too many emergency responders report for duty even when they don't have to.

- It would be very useful to remind emergency works to follow the official emergency plan and only report for duty as planned.

- If this is not included in the emergency information made public, many more emergency workers will show up than are needed.

CONCURRENT EVENTS

- The odds of two rare events happening at the same time are so low that emergency planning for two concurrent hazardous events, one involving a nuclear power plant, is not required to address this issue.

- The people who made this decision are probably correct.

- It is a different ball game for people (YOU) who are responsible for issuing warnings. Recall that you'll need to address other INFORMATION that the public has heard in subsequent warnings that you issue.

- It probably won't happen, but you should be extra vigilant in your information monitoring to see if anyone is saying anything to the public being warned about other hazards.

- For example, what would you say in the warnings you might issue if misinformation got out that the problem at the power plant was caused by a terrorist attack and that another one is likely?

UNIQUE GEOGRAPHICAL FEATURES

- Some Emergency Planning Zones (EPZ) have unique geographical features that can make issuing warnings to people at risk more challenging than in other EPZs.

- Examples of such features include:

    Bodies of water

    Camping grounds

    Beaches

    And others

- Become familiar with the unique geographical features of your EPZ in terms of the implications those unique features might have for what you say in the warnings that you issue.

DEALING WITH QUACKS, PSYCHICS, SOOTHSAYERS AND WEIRDOS

- It has happened more than once for different kinds of low probability/high-consequence events, and officials are rarely prepared to handle it well.

- Non-official warnings about something that has no basis in reality can receive public visibility, the public can believe them, and there are examples of the public taking actions on the basis of them EVEN WHEN THEY ARE UNFOUNDED.

- Such events typically involve people claiming to have psychic powers or others who are unofficial sources.

- The societal impact of such events has been large and these circumstances should not be discounted. It could happen at your power plant and you should be ready to deal with it.

- What's needed is simply a reasonably quick public statement from a mix of appropriate spokespersons to counteract the misinformation.

- The problem that's characterized these events in our nation's history is that they were never taken seriously, and no one ever thought that the public would believe a psychic, but they did. In more than a few cases, significant evacuations and economic impacts actually did happen.

12. ENDING THE WARNING

INTENTION

- The intention of this course section is to tell you how to appropriately END a public warning.

WHAT SHOULD BE SAID

- Issuing an “all-clear” message after an emergency has ended is not as straightforward as it might appear on the surface.

- All of the aspects of emergency warning information already reviewed in this course, e.g., content, style, communication mode and so on, should be followed in writing an all-clear message.

- Additionally, an all-clear message must be customized to fit the unique circumstance of the emergency that has just ended.

- Here’s what there is to keep in mind:

  Location: The people you need to communicate with may no longer be close by, e.g., some may have used their evacuation to visit relatives in another state.

  Misinformation: People may have special concerns based on misinformation that was circulated during the emergency. You will have to address that misinformation. For example, during the evacuation at Three Mile Island some people were reluctant to return home because they heard that radiation was heavier than air and thought that it was lurking in their basements.

  Invisible Radiation: Since radiation is invisible, some people may have a fear that their home or workplace is contaminated and not healthy. This means that an all-clear message should address that issue and give people information about the lack of contamination.

- Other unique aspects of an all-clear message could characterize the unique emergency just experienced. The point to remember is, what you communicate in the all-clear message must address all unique aspects of the emergency just experienced.

NEW WARNINGS AFTER AN “ENDED” WARNING

- On occasion, a warning will be ended and then reissued.

- Research has found that warnings that are cancelled and then reissued do NOT have a negative effect on people at risk IF the reasons for the changes are explained to the public in the subsequent warning that are issued.

13. CONDUCTING A POST-WARNING ASSESSMENT

LEARNING FROM EXPERIENCE

- The post-warning period proves an important opportunity for emergency managers to learn from and improve the warning process.

- In the immediate aftermath of the event, managers will be able to capture perishable information which could lead to improved methods of communication, increased effectiveness in alerting populations, leading to better strategies for future preparedness.

- It is important to be aware that in a major event, an external investigation WILL be conducted.

POPULATION MONITORING AND ASSESSMENT

- Important issues to include in the assessment of population response include the following:

  What protective actions were taken as a result of the warning?

  Were people effectively educated beforehand about the warnings they received during the event?

TECHNOLOGY ASSESSMENT

- Important issues to include in the assessment of technologies used to alert, notify and warn impacted populations include the following:

  What technologies were used?

  Did these technologies reach their intended audiences?

  Were the technologies successful in waking or distracting populations from their normal activities?

  Were there any technology malfunctions or failures?

WARNING MESSAGE AND MODIFICATIONS ASSESSMENT

- Important issues to include in the assessment of warning messages include the following:

  What were the messages that were disseminated to the public?

  Were the messages clear, and consistent? Were they provided by multiple sources? Did they have accurate information about the hazard?

  Did these messages include specific information about protective actions that should be taken by persons at risk?

  Were messages provided in languages that were specific to publics at risk?

  What modifications were made as protective actions were monitored?

THE END